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Sara.Parkinson@cbre.com

Your Ref 2015/0921/P

10th April 2015

Charles Thuaire
Development Planning
Camden Council
5 Pancras Square
London
N1C 4AG

Dear Charles,

CHARLIE RATCHFORD EXTRA CARE CENTRE, CROGSLAND ROAD, CAMDEN: PLANNING APPLICATION REF: 2015/0921/P – SUBMISSION OF FORMAL RESPONSE TO STATUTORY CONSULTEE COMMENTS

I am writing to you on behalf of the London Borough of Camden (the Applicant) who submitted a full application for the redevelopment of land at Crogsland Road, NW1 8HF on 12th February 2015 (Ref: 2015/0921/P).

Since the submission of the application we have sought to engage positively with the Council in respect to the progress of the application and, in particular, to respond pro-actively to any queries or comments on the application proposals and associated technical issues. A number of comments/queries were received on the following issues to which we provide a formal response in this letter and attachments:

- Sustainability;
- Energy;
- Air Quality;
- Nature Conservation and Biodiversity;
- Flood Risk; and
- Access;

The following response should provide the necessary clarifications in order for this application to be determined.

Sustainability

Amy Farthing, Sustainability Officer provided comments in an email dated 06 March 2015. She acknowledged that BREEAM 'excellent' is proposed and that the minimum requirements of CPG3 within the Energy, Materials and Water categories will be achieved and stated that this should be

secured through a 'sustainability plan' to be submitted as part of a S.106 requirement. We take note of the comments and consider that no response is required.

Energy

In respect to the Energy Statement submitted as part of the application by URS, the comments raised by the Sustainability Officer are set out in full in Appendix 1. The following points were raised:

- Further information on PV Panels requested;
- Further clarification on the energy profile for the proposed hearing system;
- Clarification of potential connection to future hear district network;

A detailed response to each query is set out in a technical addendum note prepared by URS (30 March 2015) at Appendix 2 and sets out a response in full to the Council's queries:

- URS have confirmed the energy demand met by each system per type of use and the figures are provided in the table below:

ENERGY DEMAND PER USE AND SYSTEM (KWH/YR)	
DHW demand met by gas boilers	115,597
Space heating demand met by gas boilers	51,005
Space heating demand met by ASHPs	16,714
Cooling demand met by ASHPs	28,117

- The development will be future-proofed to ensure that it will be possible to connect to a nearby district heat network when it becomes economically and technically feasible.
- The proposed strategy at submission included the installation of an area of 223 m2 of Photovoltaic (PV) technology on the roof. Revised roof plans have been submitted to the Council (17 March 2015: Drawing Reference: No. AA4796 2042A) which show a reduced area of 209m2 of PV panels using more efficient panels. This will achieve a 41.2kwp output and generate 32.4 mwh of electricity offsetting 17 tonnes of CO2.
- A copy of this roof plan (No. AA4796 2042A), is enclosed for ease of reference (Appendix 3).

Air Quality

Comments were made by the Sustainability Officer in an e-mail dated 06 March 2015 in relation to Air Quality. The detailed comments raised by the officer can be seen in Appendix 1. However in summary, further clarity on the predicted NO2 levels compared with the London air mapped levels and the impact of this data was requested. The response to this query is set out below (provided by Rambolls Air Quality Consultants):

- The Sustainability Officer made reference to a map taken from www.londonair.org.uk; this map uses data from 2010 and can therefore not be compared to the existing situation or used for future projections. However, the following comments were provided:
  - The air quality levels in 2010 were particularly bad and the majority of the UK had higher than expected NO2 levels. Swiss Cottage had a reading of 81.6μg/m3 in 2010. NO2 levels have since dropped below 2010 levels and at Swiss Cottage were down to 63μg/m3 in 2013.
  - The 2010 air map therefore cannot suggest that the NO2 level at Crogsland Road is above the UK Objective for NO2 for the opening year of the development: 2016. Hence why dispersion modelling was undertaken.
- The officer also requested clarifications of how the use of the monitored data at Fitzjohns avenue (65.24 mg/Nm3 in 2013) would likely impact results, particularly whether this could increase predicted emissions to beyond EU limit values. Rambolls provided the following comment:
  - The assessment predicted NO2 levels for the proposed development at Crogsland Road for an opening year of 2016.
  - The Dispersion Model was verified using monitoring data from the Swiss Road Monitor recorded in 2013. The model utilised traffic counts recorded in 2014 adjacent to this monitor and factored back to 2013. This provided an area based verification factor for the Model. The proposed development is located at Crogsland Road set back from Haverstock Hill / Chalk Farm Road. Predicted traffic data for Crogsland Road, Prince of Wales Road and Haverstock Hill / Chalk Farm Road for 2016 were used in the modelling of the proposed development and results were factored using the verification factor.

Nature Conservation and Biodiversity

Amy Farthing also provided a separate email on the 6th March 2015 setting out comments on biodiversity and nature conservation.

In summary the Officer requested the following:

- Further details on the potential for inclusion of a green roof;
- Conditions on vegetation clearance, green roof and landscape to be included.

The detailed request is contained in Appendix 1. Greengage has provided a comprehensive detailed response letter which is set out in Appendix 4. However in summary stated that;

- Proposed conditions 1 and 3 are acceptable in respect of vegetation and landscape. However, due to the full coverage of the roof with PV and roof plant it was considered feasible or viable to incorporate a green roof within the development.

Flood Risk

The comments raised by the Sustainability Officer in relation to the Flood Risk Assessment by Peter Brett Associates include:

- Request for clarification of run off rates;

- Request for details of storage and attenuation volumes to achieve the run off rates;
- Clarification of the porous paving and where the attenuated water will be directed including confirmation of volumes and discharge rates;

The comments raised by the Officer are set out in full in Appendix 1. Peter Brett Associates as Flood Risk Consultants provide the following formal response:

- The Flood Risk Assessment estimated that the proposals will reduce the amount of impermeable area, which would represent a reduction in the current volume and rate of run-off.
- It is proposed that the maximum discharge rate from the site is not greater than 5 l/s, which is a notional Greenfield runoff rate and is the lowest discharge rate practicably achievable.
- A combination of Sustainable Urban Drainage Systems (SUDs) measures, including a green roof[1], porous paved construction and deep porous sub-base will collect surface water and discharge it at a controlled rate into the public sewer system.
- It is confirmed that the proposed porous paved areas would provide surface water attention (with any water in excess routed away to the soft landscaped area) and that no infiltration is proposed in the ground, due to its poor infiltration rates (please see Phase 1 and 2 Ground Condition Assessment, 2014).
- Finally, the maintenance of the proposed drainage system, including SUDS, will fall under the responsibility of the site's owner. A detailed maintenance plan will be developed as the design progresses to the next stage and the details of the surface water strategy are finalised.

Access

The London Borough of Camden's Access Officer, Michelle Horn provided feedback on the application proposals in a note dated 10 March 2015 (Appendix 5). In summary the access officer requested the following:

- Further information on whether the units meet lifetime homes standards with clarification requested on entrance doors and WC;
- Clarification on the entrance paving for the day centre.

PRP Architects provided a detailed response and this is enclosed within Appendix 6. The formal response is accompanied by a number of explanatory plans and a lifetime homes assessment. In summary PRP note:

- The development complies with all Lifetime Homes criteria. A drop off/ambulance bay is located adjacent to the front door of the building and a 13 person lift provides convenient access to the flats.
- All of the units are designed to be wheelchair 'accessible' with wide door openings, turning circles, layouts to suit the use of a hoist, wall strengthening for future grab rails, space for side transfer to the WC and a level access shower. Kitchens are adaptable for wheelchair use.

[1] Should the use of a green roof not considered to be viable at detailed design stage, an alternative solution to provide the required attenuation volume would be to construct an attenuation tank under the footway, discharging to the combined sewer system via a surface water pump station.

- The plans have been updated to show a 300mm leading edge to the flat entrance doors and the shower room layouts include a side transfer as the shower space adjacent to the WC is an open space level access shower.
- The day centre has a block paving approach which is level and suitable for wheelchairs and walking frames.

Conclusion

We have provided a comprehensive response to the queries and comments raised by the Council on environmental, access and sustainability matters relating to the application proposals. We trust this provides you with the necessary clarification in order for the application proposals to be progressed.

We look forward to hearing from you in due course. However, should you wish to discuss this, please do not hesitate to contact me on 0207 182 2741 or my colleague Laura Morris on 020 3214 1896 at any stage.

Yours sincerely

S Parkinson

SARA PARKINSON
ASSOCIATE DIRECTOR

CBRE

APPENDICES

Appendix 1– Sustainability Officer Comments

From:	Farthing, Amy
To:	Thuaire, Charles
Subject:	RE: Consultee letter for PlanningApplication Application: 2015/0921/P_Charlie Ratchford_energy, air quality, flood risk
Date:	06 March 2015 16:05:23

Charles,

See comments below on Energy, Air Quality, and Flood Risk.

Energy

Policy targets

The development falls just short (by 2 tonnes CO2/yr) of the London Plan policy target of 35% CO2 reduction beyond Part L 2013 baseline emissions. As such, a financial contribution into the Councils carbon offset fund should be sought. This would amount to £5,400 (2 tonnes x 30 yrs x £90)

The CPG 3 requirement for a 20% reduction in CO2 emissions will be achieved through the use of PV on the roof. Further information required before this can be verified (see comments below)

Future connection to a decentralised energy network.

A split heating system for the development is being proposed, with communal gas boilers providing hot water and space heating to the residential units and hot water to the ground floor areas, and the ASHP to provide space heating and cooling to the ground floor non-residential areas.

Action for applicant: The applicant should confirm the following figures (kWh/yr):

- *DHW demand met by gas boilers*
- *Space heating demand met by gas boilers*
- *Space heating demand met by ASHPs*
- *Cooling demand met by ASHPs*

The applicant should confirm whether the whole site would be capable of connecting to a future district heat network (including the non-residential areas served by the ASHP) to provide hot water and space heating and further detail of how this would be enabled considering the proposed split in heat provision should be provided.

Renewable Energy

Circa 233m2 PV is proposed. Appendix E of the energy statement shows that the majority of the roof would be covered in PV, however this doesn't appear to have been included on the main roof plans submitted.

Action for applicant: We need to see the proposed PV panels drawn onto a roof plan, showing proposed angle and spacing to confirm that they will not over-shade one another. This will also help to assess whether the proposed PV would be visible from the surrounding area (which may/ may not be acceptable). The applicant should also confirm power output per panel (W).

This information is required before CO2 emissions savings stated can be verified.

Sustainability

BREEAM ‘excellent’ is proposed, and the minimum requirements of CPG3 within the Energy, Materials and Water categories will be achieved. This should be secured through the usual S106 ‘sustainability plan’.

Air Quality

The air quality statement has been carried out in accordance with recommended guidance.

The applicant has predicted site NO2 levels to be circa 31mg/Nm3 (within the EU emission limits (max 40mg/Nm3)) using dispersion modelling. The model has been verified using Camden's monitoring data from the Swiss Cottage monitor.

Action for applicant: The air quality consultant should provide comment on the NO2 levels predicted in the model compared to those demonstrated on the London air mapped levels, which suggests the NO2 level is likely to be exceeded on Crogsland Road (see below), and how the use of the monitored data at Fitzjohns avenue (65.24 mg/Nm3 in 2013) would likely impact results, particularly whether this could increase predicted emissions to beyond EU limit values.

Flood Risk

The surface water drainage strategy in appendix D proposes the following:

- All paved surfaces (footways and parking areas) are to be of porous paved construction on a 450mm sub-base.
- A green roof is proposed to reduce surface water run off rates in accordance with Camden policy. This should be secured by condition.
- Run off from low level roofs and balconies will be discharged to the surface water drainage system.
- All surface water run off leaving the site will be discharged by the public sewer in Crogsland Rd and will have flow restricted to 5l/s

Action for applicant: In accordance with NPPF and Camden policies the applicant should confirm the following:

1. *Existing site run off rate (l/s) for critical storms up to and including the 1 in 100yr*
2. *Propose site run off rate (l/s) for critical storms up to and including the 1 in*

100yr + 30% allowance for climate change.

Run off rates should not increase post development for all flood events. To mitigate for climate change the proposed 1 in 100 +CC run off rate must be no greater than the existing 1 in 100 runoff rate, and greenfield run off rates should be met (NPPF).

3. *Volume of run off from existing site (m3) for critical storms up to and including the 1 in*
4. *Volume of run off from proposed site (m3) for critical storms up to and including the 1 in 100yr + 30% allowance for climate change*

Proposed discharge volumes (without mitigation) should be no greater than existing volumes for all corresponding storm events. Any increase in volume increases flood risk elsewhere. To mitigate for climate change the volume discharged from site must be no greater than the existing 1 in 100 storm event. If not, flood risk increases under climate change.

Where volumes are increased details of storage and attenuation volumes required to achieve proposed run off rates should be provided, and locations shown on a plan.

With respect to the proposed porous paving, the applicant should confirm whether this will act as attenuation with water being fed into the TW combined sewer, or whether it is proposed that this water will infiltrate into the ground. If the latter, infiltration rates should be provided and these should be no lower than $1x10^{-6}$ m/s, and the applicant should confirm the volume of water that can be infiltrated, and any remaining that will need to be stored on site before being released at a restricted rate into the sewer system. Confirmation of how the restricted rate will be achieved should be confirmed.

Finally, details of how the drainage system will be maintained should be provided.

Thanks

Amy Farthing
Sustainability Officer

Telephone: 020 7974 7611
-----Original Message-----
From: Dawson (development), Barry
Sent: 03 March 2015 14:14
To: Farthing, Amy
Subject: Consultee letter for PlanningApplication Application: 2015/0921/P

Please find attached Consultee letter for PlanningApplication application 2015/0921/P

Y2015/0921/P

Appendix 2– URS Response

Addendum Note

Our Ref: 47071124 – Charlie Ratchford Extra-Care Scheme

Date: 30th March 2015

To: Camden Council

From: Ioanna Mytilinaiou – AECOM

cc: Luke Aldred – AECOM

Subject: ***Response to the Consultee letter for Planning Application (No. 2015/0921/P) - Energy***

Site name: Charlie Ratchford Extra-Care Scheme

This note has been prepared following the comments from the London Borough of Camden on the Planning Application No. 2015/0921/P with regards to the energy section. This Addendum Note should be read in conjunction with the Energy Strategy document issued on 2nd February 2015 and submitted as part of the planning document under the above reference number.

The actions for applicants relative to Energy, as outlined in the *Consultee letter for Planning Application 2015/0921/P*, are:

A. The applicant should confirm the following figures (kWh/yr):
   - DHW demand met by gas boilers
   - Space heating demand met by gas boilers
   - Space heating demand met by ASHPs
   - Cooling demand met by ASHPs

   The applicant should confirm whether the whole site would be capable of connecting to a future district heat network (including the non-residential areas served by the ASHP) to provide hot water and space heating and further detail of how this would be enabled considering the proposed split in heat provision should be provided.

B. The applicant should provide the proposed PV panels drawn onto a roof plan, showing proposed angle and spacing to confirm that they will not over-shade one another. This will also help to assess whether the proposed PV would be visible from the surrounding area (which may/may not be acceptable). The applicant should also confirm power output per panel (W).

Each of the points is addressed in turn below.

Action A:

A separate heating system has been considered for the residential and non-domestic elements of the Proposed Development. Community gas boilers will supply domestic hot water (DHW) and space heating to the residential units as well as DHW to the ground floor communal areas. Meanwhile, Variable Refrigerant Flow (VRF) systems in the form of Air Source Heat Pumps (ASHPs) will provide space heating and cooling to the ground floor non-

residential areas (i.e. café, restaurant, staff rooms, lounges, activity room and meeting rooms).

The energy demand met by each system per type of use is provided in the table below.

Energy demand per use and system (kWh/yr)	
DHW demand met by gas boilers	115,597
Space heating demand met by gas boilers	51,005
Space heating demand met by ASHPs	16,714
Cooling demand met by ASHPs	28,117

In order to support the potential of connecting to a future heat network, the building will be future-proofed in order to ensure it is possible to connect to a nearby network when it becomes economically and technically feasible in the future.

Future proofing will be secured by providing a single plant room, with space being made available for appropriate equipment and infrastructure. Any future district heating services will be distributed via the boiler plant room to serve the development. Pipework shall be distributed from the ground floor plant room and distribute via a single residential heating riser. It is proposed that each apartment shall be heated via a thermal interface unit (TIU) connected to the district heating system.

Specifically, capped-off valves shall be provided at construction to facilitate the future connection to an external district heating system.

Further details regarding future district heating connections will be provided at tender stage.

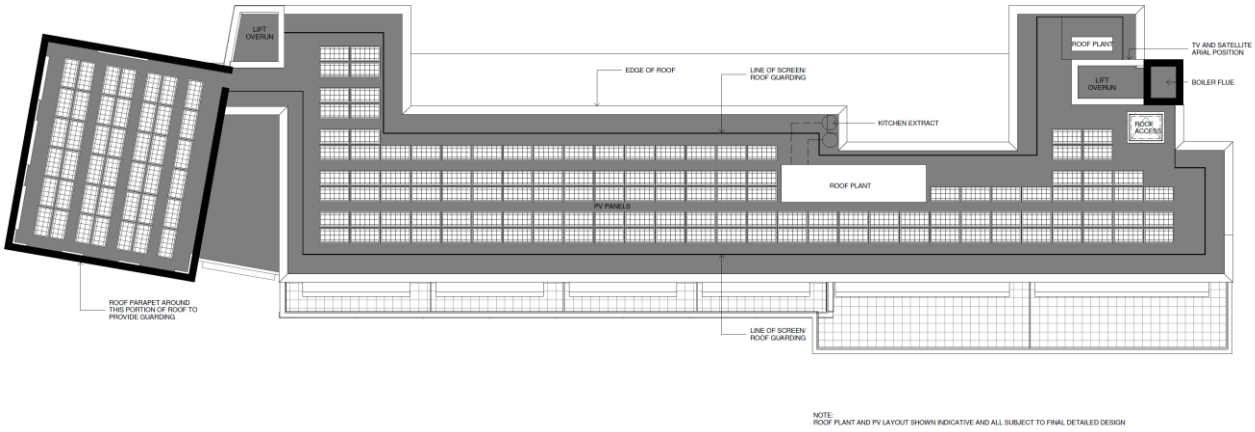
Action B:

The current proposed strategy includes an installation of an area of 223 m^2 of Photovoltaic (PV) technology on the roof of the Proposed Development.

However, following further coordination with the design team, and in order to avoid overshading between arrays and to account for extra spatial requirements for mechanical roof plant, the Proposed Development would provide for 209 m^2 of PV panels. To compensate for the reduced area, and to ensure the same kWp output is maintained, a more efficient panel will be installed.

The PV panel that has been suggested has an output of 245W and an area of 1.244m^2. The 168 panels located on the roof of the Proposed Development – as demonstrated on the roof plan already provided to the council and included below for convenience – will give a total output of 41.2 kWp and are estimated to generate circa 32.4 MWh of electricity annually, offsetting circa 17 tonnes of CO_2.

The panels are to be laid horizontal (0°), specifically in order to prevent overshading and avert any visual impact from street level. Clear sections of the PV roof layout have also been provided to the Council.

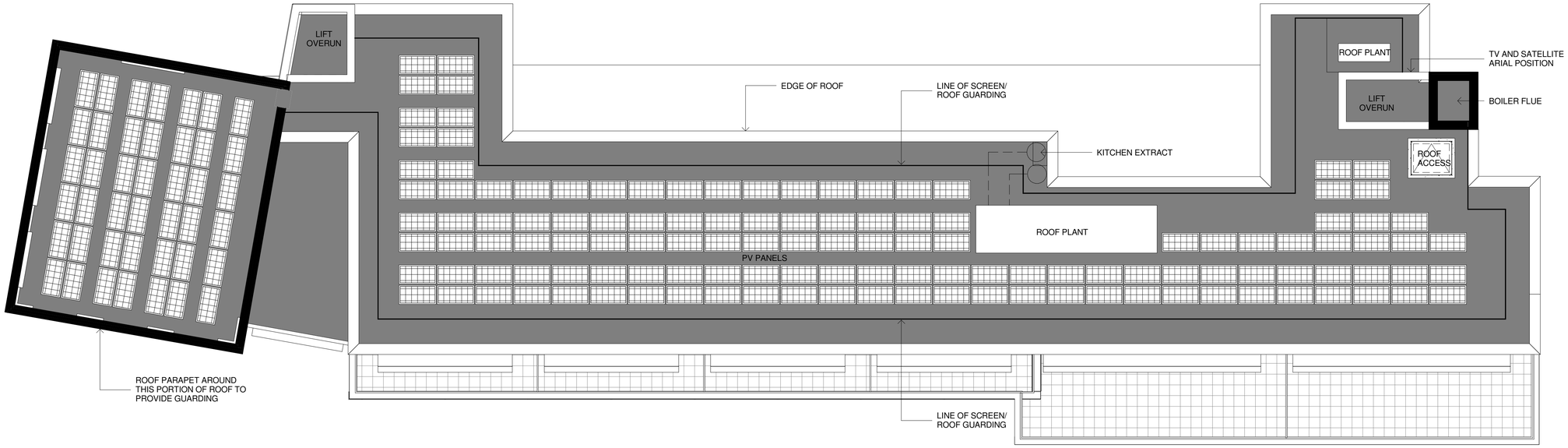


We trust this Addendum Note is of assistance, but should you have any questions or further comments related to this document or the submitted Energy report, please do not hesitate to contact us.

Ioanna Mytilinaiou

Ioanna.mytilinaiou@aecom.com

Appendix 3 – Roof Plans (PRP Architects)



Roof Plan
1 : 100

0 10m 20m

Camden

Charlie Ratchford, Extra Care

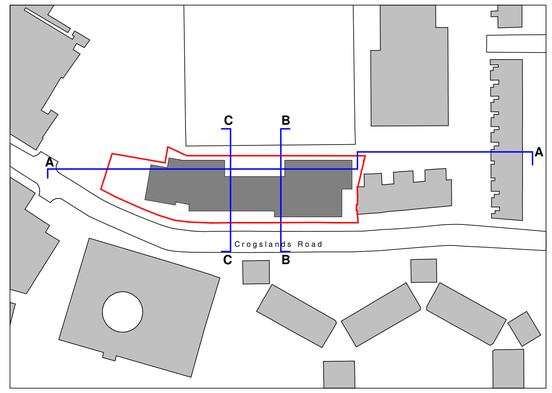
title	Proposed Roof Plan	drawn	CW
		checked	CJP
		scale	1 : 100
drawing no	AA4796/2042A	date	March 15

PRP

Section AA
1 : 200

Section - BB
1 : 200

Section - CC
1 : 200



Key Plan - Sections
1 : 1000

N

0 10m 20m

PLANNING

Camden

Charlie Ratchford, Extra Care

title	Proposed Sections	drawn	CJP
		checked	CC
		scale	As indicated
drawing no	AA4796/2007D	date	Dec 2014

PRP

Appendix 4 – Greengage Response

64 Great Suffolk St
London SE1 0BL
T: 0203 544 4000
E: info@greengage-env.com

Laura Morris
CBRE Ltd
Henrietta House
Henrietta Place
London
W1G 0NB

Date 10th April 2015
Our ref: 550544JB26MAR15L2_CRRC_Cons_Com

Dear Laura,

Charlie Ratchford Resource Centre – Consultation Comments Response

Please find below my responses to the consultation comments received in regards to nature conservation and biodiversity for the Charlie Ratchford Resource Centre application.

Recommended Conditions:

Condition*: 'Timing of vegetation clearance (breeding birds)*

All removal of trees, hedgerows, shrubs, scrub or tall herbaceous vegetation shall be undertaken between September and February inclusive. If this is not possible then a suitably qualified ecologist shall check the areas concerned immediately prior to the clearance works to ensure that no nesting or nest-building birds are present. If any nesting birds are present then the vegetation shall not be removed until the fledglings have left the nest.'

Response: As is referenced in the Ecology Report breeding/nesting birds are protected by the Wildlife and Countryside Act (1981) and therefore this condition is to be expected with much of the vegetation providing some limited opportunities for breeding/nesting birds. The bird nesting season typically runs from March to August so the timings within the condition are correct. This condition shouldn't be seen as too much of a constraint as vegetation clearance can be undertaken during nesting seasons if a qualified ecologist has confirmed the absence of nesting birds.

Condition: '*Landscape design for biodiversity Landscape: details to be submitted*

No development shall take place until full details of hard and soft landscaping and means of enclosure of all un-built, open areas have been submitted to and approved by the local planning authority in writing. Such details shall include details of proposals for the enhancement of biodiversity, with particular reference to bats and invertebrates, in line with recommendations made in the approved ecology survey. The relevant part of the works shall not be carried out otherwise than in accordance with the details thus approved.'

Response: I agree with the above condition, particularly in relation to biodiversity enhancements. In addition to meeting policy the enhancements proposed in the Ecology Report will be required to achieve the targeted BREEAM and CSH credits.

Greengage Environmental LLP Registration No. OC316602 Registered Address: Camburgh House, 27 New Dover Road, Canterbury, Kent, CT1 3DN

I hope the response I have provided are clear. However, if you have any questions or require any additional information then please do not hesitate to get in contact.

Yours sincerely,

James Bumphrey

Consultant

For and on behalf of Greengage Environmental LLP

Appendix 5 – LB Camden Access Officer Comments

LONDON BOROUGH OF CAMDEN

ACCESS COMMENTS

From: Michelle Horn
Tel. number: 020 7974 5124
Ref: 2015/0921/P
Date: 10/3/15

To: Charles Thuaire

Re: Vacant site (adjacent to no. 11_ Crogsland Road
Redevelopment of vacant site by the erection of a 6 storey building comprising a day centre (Class D1) on the ground floor and 38 extra-care residential flats (Class C3) on the upper floors, plus roof terraces, communal gardens and minibus parking.

As new build Part M of the Building Regulations will apply – both non-dwellings and dwellings sections. In addition planning policy DP6 will require all the dwellings be designed to comply with Lifetime homes standards and 10% to be suitable for or easily adaptable for wheelchair users.

Residential:

Due to the nature of the residential element of the building and its occupants the proposal is that all units are suitable for or easily adaptable for wheelchair users, and would therefore also meet Lifetime homes standards.

There is no confirmation that the units have been designed to Lifetime homes standards so this should be secured by condition. From the details provided the 2 requirements I can see that are not provided throughout is the 300mm clear space to the leading edge of the flat entrance doors and the side transfer space to the WC (layout doesn't meet LHS or wheelchair housing standards) Further details of this should be submitted.

Day Centre:

This appears accessible although the entrance paving is labelled as block paving so it is not clear how accessible this will be. This should be clarified.

Internally there are a number of detailed issues that will need to be reviewed however these should not affect the planning application.

Appendix 6 – PRP Response and Plans

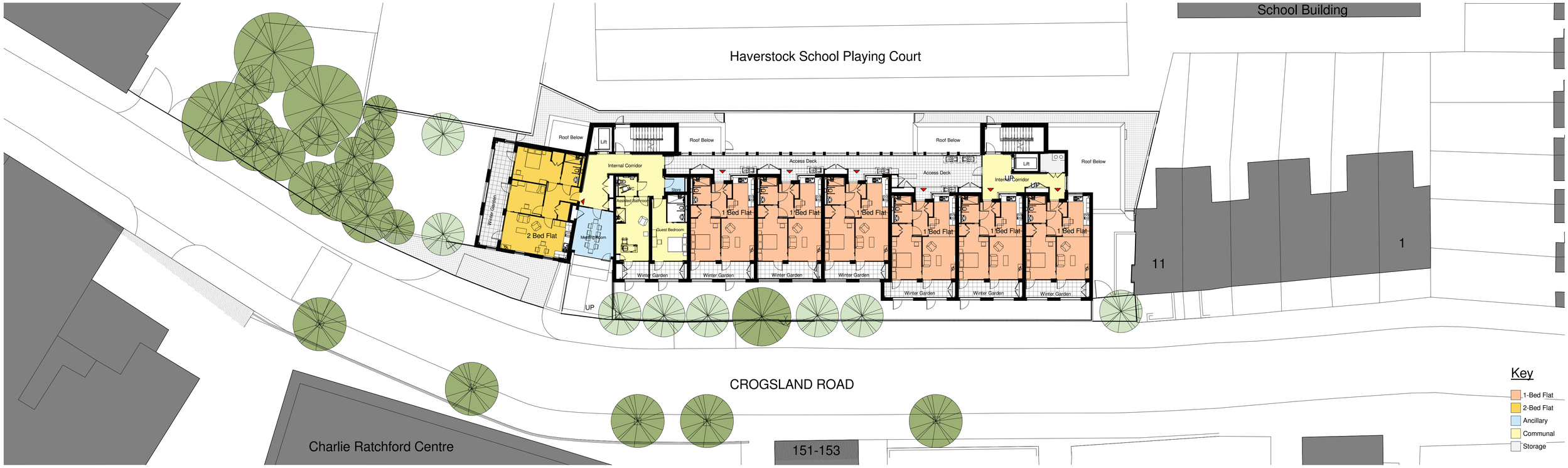
Ground Floor Plan
1 : 200

Camden

Charlie Ratchford, Extra Care

title	Proposed Ground Floor Plan	drawn	CJP
		checked	RVP
		scale	1 : 200
drawing no	AA4796/2040A	date	JAN 15

PRP



First Floor Plan
1 : 200

Second Floor Plan
1 : 200

Fourth Floor Plan
1 : 200

Third Floor Plan
1 : 200

0 10m 20m

Fifth Floor Plan
1 : 200

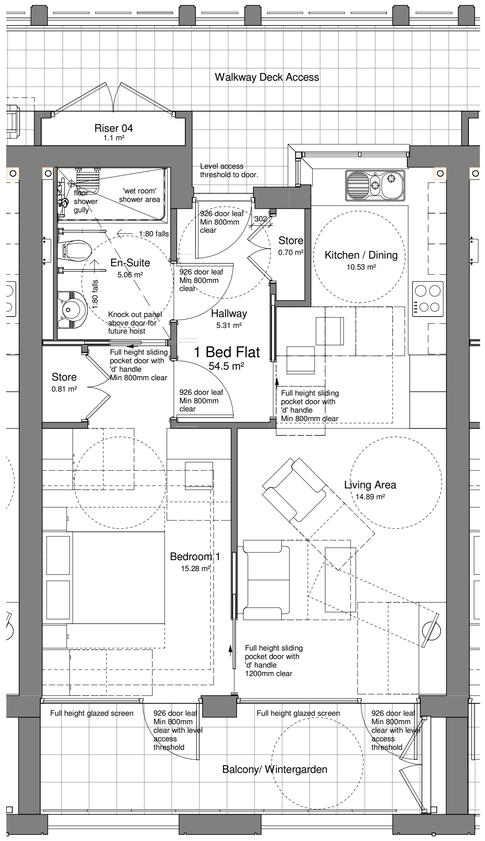
N

Camden

Charlie Ratchford, Extra Care

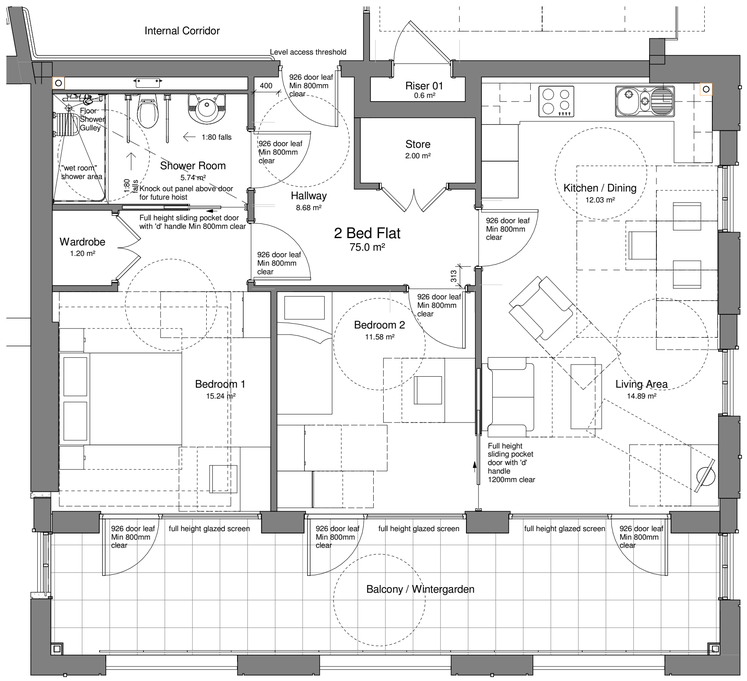
title	Proposed Upper Floor Plans	drawn	CJP
		checked	RVP
		scale	1 : 200
drawing no	AA4796/2041A	date	JAN 15

PRP



Typical 1 Bed Apartment Layout
1 : 50

Typical 2 Bed Apertment Type B PLANNING
1 : 50



Typical 2 Bed Apartment Type A Layout
1 : 50

0 2.5m 5m

Camden

Charlie Ratchford,

Extra Care

PLANNING

title	Apartment Layouts	drawn	CW
		checked	CJP
		scale	1 : 50
drawing no	AA4796 / 2043	date	March 15

PRP

Lifetime Homes Standard (July 2010)		Dwelling type/ ref	1 Bed Unit	2 Bed Unit - Type A	2 Bed Unit - Type B			Comments
		Beds/ persons	1B / 2P	2B / 3P	2B / 3P			
		Net Internal Area m^2	54.5	75.0	64.4			
		No of this unit type	31.0	5.0	2.0			
		Dwg no	2040A, 2041A & 2043	2040A, 2041A & 2043	2040A, 2041A & 2043			
		Revision	08.04.15	08.04.15	08.04.15			
1a	'On plot' (non-communal) parking: Where a dwelling has car parking within its individual plot (or title) boundary, at least one parking space length should be capable of enlargement to achieve a minimum width of 3300mm.		N/A	N/A	N/A			No Parking has been provided on site, please refer to the transport statement
1b	Communal or shared parking: Where parking is provided by communal or shared bays, spaces with a width of 3300mm should be provided.		N/A	N/A	N/A			No Parking has been provided on site, please refer to the transport statement
2	Access from Car Parking: The distance from the car parking space to the dwelling entrance should be kept to a minimum and should be level or gently sloping.		N/A	N/A	N/A			No Parking has been provided on site, please refer to the transport statement
3	Approach to all entrances: The approach to all entrances should be level or gently sloping.		✓	✓	✓			The main entrance is accessed via a 4.5m long 1:15 ramp in accordance with figure 3 with 1.2m landings at the bottom and 1.5m at the top adjacent to the entrance doors and a minimum of 1200mm wide.
4	Entrances: All entrances should: a) be illuminated b) have level access over the threshold; and c) have effective clear opening widths and nibs as specified below In addition, main entrances should also: d) have adequate weather protection; and e) have a level external landing		✓	✓	✓			The main and flat entrances are illuminated (via lighting in the canopy to the main entrance, along the deck access and in the internal corridors) with a level thresholds (max 15mm up-stand). The clear opening widths of the main entrance sliding doors and flat entrance doors (800mm min) meet the stipulations of figure 5, along with a 300mm nib as per figure 6. Entrance doors are weather protected by the entrance canopy, access deck or internal corridor, and have either a 1200mm x 1200mm level landing to individual dwellings and 1500mm x 1500mm level landing to communal entrance.
5	Communal Stairs and Lifts: a) Communal stairs should provide easy access and b) Where homes are reached by a lift, it should be fully accessible.		✓	✓	✓			The staircases provided meet the stipulations of LTH Criterion 5a in terms of risers (max 170mm) and goings (min 250mm) handrails (300mm beyond top & bottom & 900mm above nosing) as per figure 10 and contrasting nosings etc. The lifts provided both meet and exceed the stipulations of criteria 5b.in terms of internal size (min 1100mm x 1400m) Landings (1500mm x 1500mm) lift controls (between 900mm - 1200mm & 400mm from the front wall) as per figure 11
6	Doorways and Hallways: The width of the doors and halls should conform to the specifications below: **Doorway clear opening width** — **Corridor/passageway width (mm) minimum** 750mm or wider — 900mm (when approach is head-on) 750mm or wider — 1200mm (when approach is not head-on) 775mm or wider — 1050mm (when approach is not head-on) 900mm or wider — 900mm (when approach is not head-on)		✓	✓	✓			Hallways within the flats are 1500mm wide to allow for wheelchair turning and communal corridor widths are at least 1200mm wide which meet the stipulations of LTH Criterion 6. Door widths in flats are 926mm to achieve a minimum clear opening of 800mm as well as a 926mm entrance door. All communal corridor doors comprise 926mm leafs which achieve a clear opening of over 800mm. All communal doors and doors at entrance level of each dwelling to have a 300mm nib to the leading edge on the pull side
	The clear opening width of the front door should be a minimum 800mm.		✓	✓	✓			
	There should be a 300mm nib to the side of the leading edge of doors at entrance level.		✓	✓	✓			
7	Wheelchair Accessibility: There should be space for turning a wheelchair in dining areas and living rooms and adequate circulation space for wheelchairs elsewhere.		✓	✓	✓			Living Room / Dining Room areas have wheelchair accessibility [in terms of 1500mm turning circles or 1700mm x 1400mm ellipse & 750mm between furniture etc.] within each of the new flats, Kitchens have a minimum 1200mm clear between units and bedrooms have a 750mm wide zone around both sides and the foot of the bed all in accordance with LTH Criterion 7. Turning / Activity zones are generally shown on the type-plans for kitchen, bathrooms and bedrooms.
	Where movement between furniture is necessary for essential circulation in Living Rooms a clear width of 750mm between items should be possible.		✓	✓	✓			
	Kitchens should have a clear width of 1200mm between units		✓	✓	✓			
	The main bedroom in a dwelling should be capable of having a clear space, 750mm wide to both sides and the foot of a standard sized double bed.		✓	✓	✓			

Lifetime Homes Standard (July 2010)		Dwelling type/ ref	1 Bed Unit	2 Bed Unit - Type A	2 Bed Unit - Type B			Comments
		Beds/ persons	1B / 2P	2B / 3P	2B / 3P			
		Net Internal Area m^2	54.5	75.0	64.4			
		No of this unit type	31.0	5.0	2.0			
		Dwg no	2040A, 2041A & 2043	2040A, 2041A & 2043	2040A, 2041A & 2043			
		Revision	08.04.15	08.04.15	08.04.15			
8	Living Room: A living space should be provided on the entrance level of every dwelling.		✓	✓	✓			This development comprises a series of 38 No new 1 and 2 bed flats, each accessed from a shared circulation area served by two lifts, and therefore LTH Criterion 8 relating to living rooms at entrance level is met.
9	Entrance Level Bedspace: In houses of two or more storeys, there should be space on the entrance level that could be used as a convenient temporary bed-space.		N/A	N/A	N/A			This Criterion relates to houses of two or more storey and is technically not applicable - refer to Criterion 8 above.
10	Entrance Level WC and Shower Drainage: There should be: a) A wheelchair accessible entrance level WC, with b) Drainage provision enabling a shower to be fitted in the future.		N/A	N/A	N/A			This Criterion relates to houses of two or more storey and is technically not applicable - refer to Criterion 8 above.
11	Bathroom and WC walls: Walls in all bathrooms and WCs should be capable of taking adaptations such as grab rails.		✓	✓	✓			Shower rooms and en-suites are generally constructed using proprietary plasterboard partitions compete with reinforcing plywood pattresses to facilitate the retro-fitting of grab rails within the 300-1800 zone
12	Stair Lift/Through-floor lift: The design should incorporate: a) potential for a stair lift; and, b) a suitably identified space for a through-the-floor lift from the entrance level to a storey containing a main bedroom and accesible bathroom.		N/A N/A	N/A N/A	N/A N/A			This Criterion relates to houses of two or more storey and is technically not applicable. However this development comprises a series of 38 No new 1 and 2 bed flats, each accessed from a shared circulation area served by two lifts, with all facilities at the entrance level.
13	Potential for future fitting of hoists: Structure above a main bedroom and bathroom ceilings should be capable of supporting ceiling hoists and the design should provide a reasonable route between this bedroom and the bathroom.		✓	✓	✓			The design of the new flats and specifically the provision of a shower room/en-suite accessed direct from the main bedroom, means that a ceiling mounted hoist can be retro-fitted between the bedroom and en-suite providing that a knock-out panel is provided above the door.
14	Bathrooms: An accessible bathroom, providing ease of access, should be provided in every dwelling on the same storey as a main bedroom.		✓	✓	✓			All the en-suites/shower rooms are designed to provide ease of access complete with accessible floor level shower and therefore LTH Criterion 14 is deemed to be satisfied, and specifically Figure 16 & 24
15	Window Specification: Living room window glazing should begin at 800mm or lower and at least one opening light in each habitable room should be easy to open/operate.		✓	✓	✓			Living room window glazing generally begins at FFL which is below the 800mm required and windows are easy to open/operate with handles no higher than 1200mm AFFL with a 750mm approach.as per Figure 12
16	Controls, Fixtures and Fittings: Switches, sockets, ventilation and service controls should be at a height usable by all (ie between 450mm and 1200mm from the floor).		✓	✓	✓			Sockets, fixtures and fittings are generally usable between 450mm and 1200mm and at least 300mm from an internal corner, excepting sockets to specific appliances to the u/s worktops - please refer to the M+E specifications for further details.

Guidance

- Detail guidance, including worked examples and FAQ's, is available on the Lifetime Homes website - www.lifetimehomes.org.uk
- Attention is drawn to the LTH scoring requirements within the Code for Sustainable Homes. Full compliance is mandatory at Code Level 4 and above
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Additional comments

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